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HOLLAND & HART, LLP P.O BOX 8749 DENVER, CO 80201			EXAMINER KARACSONY, ROBERT	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/776,497

Applicant(s)

BATEMAN, BLAINE R.

Examiner

Robert Karacsony

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This Office Action is in response to amendments received June 22, 2007. Claims 1-20 are pending.

#### ***Claim Objections***

2. The amendments to claims 2-12 and 13 have been received and entered in the case. The objections to claims 2-12 and 13 cited in the previous Office Action mailed April 18, 2007 are hereby withdrawn.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1: In lines 5-6 of claim 1, applicant added the limitation "mounted on at least one substrate detachably coupled to the access point". This limitation is not supported by the specification. For examination purposes, examiner interprets this limitation as "mounted on at least one substrate releasably coupled to the access point". Claim 13, 15-17 and 20 are rejected for the same reasons as claim 1, as discussed above.

Claims 2-12 are rejected for depending on rejected claim 1, as discussed above.

Claim 14 is rejected for depending on rejected claim 13, as discussed above.

Claims 18 and 19 are rejected for depending on rejected claim 17, as discussed above.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-15 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by *Theobald et al.* (US 7,119,744, hereinafter *Theobald*).

Claim 1: *Theobald* teaches an enhanced wireless access point comprising:

an access point (30);

at least one omni directional antenna (12,14) coupled to the access point; and

at least one ground plane (20, col. 3/lines 28-32 discloses passive antenna structure being reflective) mounted on at least one substrate (col. 4/lines 51-53 discloses passive antenna structure 20 disposed on a hinge) releasably coupled to the access point (col. 4/lines 48-50) and radio frequency coupled to at least one of the at least one omni directional antenna (the electromagnetic waves produced by the antenna of the access point will inherently be reflected off of the passive antenna structure), such that when the at least one ground plane is coupled to the access point the at least one omni directional antenna functions as a directional antenna to shape a coverage area of the access point and such that when the at least one ground plane is not

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coupled to the access point the at least one omni directional antenna provides an omni directional coverage area (the preceding limitation is inherent within the system of *Theobold*).

Claim 2: *Theobold* teaches the at least one omni directional antenna comprises at least one of a dipole (col. 3/lines 60-61).

Claim 3: *Theobold* teaches the at least one omni directional antenna comprises a plurality of omni directional antennas (fig. 1A).

Claim 4: *Theobold* teaches the plurality of omni directional antennas are arranged to provide diversity (col. 4/lines 42-44).

Claim 5: *Theobold* teaches the at least one ground plane comprises a plurality of ground planes (col. 4/lines 42-44).

Claim 6: *Theobold* teaches the at least one omni directional antenna comprises a first number (fig. 1A shows 4 antennas) of omni directional antennas and the at least one ground plane comprises a second number (fig. 1A shows 1 passive antenna structure) of ground planes where the first number of omni directional antenna is larger than the second number of ground planes (4 is greater than 1).

Claim 7 is similar in scope as claim 4 and is therefore rejected for substantially the same reasons.

Claim 8: *Theobold* teaches the at least one ground plane comprises one ground plane associated with one of the two omni directional antennas (col. 4/lines 42-44).

Claim 9: *Theobold* teaches the at least one ground plane comprises two ground planes, each ground plane associated with a respective one of the omni directional antennas (col. 4/lines 42-44).

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Claim 10: *Theobold* teaches the substrate is a bracket (col. 4/lines 51-53).

Claim 11: *Theobold* teaches the access point comprises a back plane (area of access point '30' that passive antenna structure '20' is disposed on) and the at least one ground plane is mounted on the back plane (fig. 1A).

Claim 12: *Theobold* teaches the at least one ground plane is placed to steer a radiation pattern associated with the at least one omni directional antenna (the passive antenna structure '20' inherently steers the electromagnetic waves produces by the antennas).

Claim 13 is similar in scope as claim 1 and is therefore rejected for substantially the same reasons.

Claim 14: *Theobold* teaches the means for providing an omni directional radio frequency pattern is at least one omni directional antenna (12,14).

Claim 15: *Theobold* teaches the means releasably coupled to the access point for converting the omni directional radio frequency pattern to a directional radio frequency pattern is at least one ground plane (col. 3/lines 28-32).

Claim 17: *Theobold* teaches a wireless gateway, comprising:

an access point (30);

the access point adapted to connect to a network (access point inherently connect to networks);

a bracket (hinge, col. 4/lines 51-53);

the bracket releasably coupled to the access point (col. 4/lines 48-50); and

the access point further comprises:

a first omni directional antenna (12); and

a second omni directional antenna (14);

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the bracket further comprises:

a first ground plane (20, col. 3/lines 28-32 discloses passive antenna structure being reflective);

such that when the bracket is coupled to the access point, the first ground plane causes the first omni directional antenna to exhibit a first directional antenna radiation pattern and when the bracket is released from the access point, the first omni directional antenna exhibits a first omni directional antenna radiation pattern (the preceding limitation is inherent within the system of *Theobald*).

Claim 18: *Theobald* teaches the first ground plane causes the second omni directional antenna to exhibit a directional antenna radiation pattern (the passive antenna structure '30' inherently causes all the antenna elements to be directional).

Claim 19: *Theobald* teaches the bracket comprises a second ground plane and the second ground plane (fig. 3A) causes the second omni directional antenna to exhibit a section directional antenna radiation pattern (the passive antenna structure '30' inherently causes all the antenna elements to be directional).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Theobald* in view of *Song et al.* (US 2004/0169612, hereinafter *Song*).

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Claim 16: *Theobold* teaches all of the limitations of claim 13, as discussed above.

*Theobold* fails to teach the means releasably coupled to the access point for converting the omni directional radio frequency pattern to a directional radio frequency pattern is about  $\frac{1}{4}$  wavelength from the means for providing an omni directional radio frequency pattern. However *Song* teaches that using a quarter wavelength spacing between the antenna and reflector results in the fields radiated by the antenna element adding constructively (in phase), thereby providing increased broadside radiation amplitude (gain) [0034]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have spaced the passive antenna structure and antenna elements of *Theobold* one quarter wavelength, as taught by *Song*, in order to have increased the gain.

Claim 20 is similar in scope as claim 16 and is therefore rejected for substantially the same reasons.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after



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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Karacsony whose telephone number is 571-270-1268. The examiner can normally be reached on M-F 7:30 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RK RK

/Hoang V Nguyen/  
Primary Examiner, AU 2821